

Work Order ID 127068

127068

Page 1

Day, December 05, 2014 10:26:00 AM

Item ID: D4464-041

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Fuel Tank Assembly

Start Date: 12/5/2014 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/19/2014 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: mf Date: 14-12-05 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D4464	E / G per ECN-14-666. U 15/1/20

100 Weld per dwg A/R Aluminum rod Batch: 3130855 0.00

100

Large Fab Memo 0.00
Large Fab 1- Weld D4023-3 cap as per dwg D4464

110

110

QC Memo 0.00
Quality Control

Achtung!
Vor Einbau Sicherungsstift herausnehmen
Attention,
remove safety pin before installation
Atenção!
Remova o pino de segurança antes de montar

JAN 27 2015
DAS 24
9-89
JAN 28 2015
DAS 43
9-89
PTO

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: 12/28/14 Date: 15/03/23Work Order update only ☐

Work Order: <u>127068</u> Part No. <u>D4464-041</u> NCR No. <u>15-4699</u>	DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☒</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☒	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☒															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause		Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	☒	15.01.30	120	1	D4124-1 TABS CAN NOT BE INSTALLED	A.P. 15.01.30	DO NOT INSTALL D4124-1 TABS		 DAS 150317	
Doc/Data	☐									
Equip/Tooling	☐								 DAS 150317	 DAS 150317
Handling/Pre	☐	15.01.30	120	1	AFTER REMOVING D4124-1 TABS, NO WAY OF FASTENING D4062-041 TANK SUPPORT ASSY	A.P. 15.01.30	•INSTALL QTY 2 MS21059L3 ON FWD & AFT D4062-041 TANK SUPPORT ASSY @ 1" & 2" FROM EDGES RESPECTIVELY •TRANSFER DRILL #.201 WHILE MAINTAINING MIN EDGE DISTANCE OF 20 •INSTALL NUT PLATES WITH MS20426-8 RIVETS &	 DAS 24 FEB 12 2015	 DAS 150317 150219	
Material	☐									
Operator	☐									
Offset/Setup	☐									
Process	☐									
Supplier	☐									
Training	☐									
Transport	☐									
Unapproved	☐									

FAULT CATEGORY INSTALL USING AN3-7A bolts and NAS1149D0363T WASHERS

Landing Gear	General	Other
☐ Bending	☐ Bend	☐ Outside Dimensions
☐ Centre Not Concentric	☐ BOM/Route	☐ Over/Under tolerance
☐ Cracks	☐ Broken/Damage/Defect	☐ Part Incorrect
☐ Crimp/Kink/Ripple/Wave	☐ Burrs	☐ Part Lost/Missing
☐ Cuffs	☐ Contamination	☐ Part Moved
☐ Crushing	☐ Countersink	☐ Positioned Wrong
☐ Heat Treat	☐ Cut Too Short	☐ Power Loss/Surge
☐ Inspection Strip in Tube	☐ Drawing	☐ Pressure/Forced
☐ Marks/Chatter	☐ Drill Holes	☐ Set-up
☐ Turning Sequence	☐ Finish	☐ Temperature/Cure
☐ Wave/Twist in Tube	☒ Fit/Function	☐ Weld
		☐ Wrong Stock Pulled
		☐ Other

Work Order ID 127068

127068

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Friday, December 05, 2014 10:26:00 AM

Item ID: D4464-041

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Fuel Tank Assembly

Start Date: 12/5/2014 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/19/2014 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

112

112

Small Fab

Small Fab

Memo

1- Install hinge w/ w/ proseal as per dwg
A/R Proseal Batch: MA

2- Wet install baffles to front and back panel using rivet and Proseal as per dwg
A/R Proseal Batch: M130090

0.00

0.00

1K

15/01/29

DAS
36
9-89

114

114

QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

0.00

1

DB

15-01-04

DQA:

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only ☐

Work Order: <u>127068</u>	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☒ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS ☒			
Part No. <u>D4464-041</u>		Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☒
NCR No. <u>15-4698</u>		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
	Large Fab ☐	Composite ☐	Supplier ☐		

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design ☒	14.02.04	120	1	APPLY PRC 890 ON ALL LAP JOINTS RC. Design	A.P. 15.02.04	ACCEPTABLE	15/02/11 DAS 36 9-89	15/03/23	15/03/23
Doc/Data ☒									
Equip/Tooling ☐									
Handling/Pre ☐									
Material ☐									
Operator ☐									
Offset/Setup ☐									
Process ☐									
Supplier ☐									
Training ☐									
Transport ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☒ Other	☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled
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Work Order ID 127068***127068***

Page 3

Friday, December 05, 2014 10:26:00 AM

Item ID: D4464-041

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Fuel Tank Assembly

Start Date: 12/5/2014 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/19/2014 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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120

Weld per dwg A/R Aluminum rod Batch: _____ 0.00

120

Large Fab

Large Fab

Memo

0.00

1- Weld D4001-1 and D4000-5 onto D4463-1 Top

2- Weld D3999-041/-043 doubler, ensure doubler and angle holes line-up for D4000-047

Transfer drill and c/sink D4975-1 bracket to bottom bracket, wet install as per dwg *Install wet Hinge with proseal*Proseal Batch: M130090

3- Weld D4000-043 and D4000-045 on tank as per dwg.

4- Instal D4000-9 grommets as per dwg, Weld D4463-3 aft end as per dwg, locate D4000-1 and wet install with rivets as per dwg

Proseal Batch: M130090

5- Weld D4463-7 fwd end

PURGE INSIDE OF TANK

6- Weld top D4463-1 using DT9811 and DT9810

PURGE INSIDE OF TANK

DAS
36
9-89DAS
43
9-89

FEB 05 2015

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☒

Work Order: <u>127068</u> Part No. <u>D4464-011</u> NCR No. _____	DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design	05-24	122		Issue PO. for LPI 27380		Process change for Aux tank.	CLIS/03/09		
Doc/Data									
Equip/Tooling									
Handling/Pre	15-2-4	123		Prq 2 Receive & inspect		Received	SP 15-02-09		
Material									
Operator		124		QC5			DAS 9-89 88-38 9-89		DAS 9-89
Offset/Setup									
Process		130		Weld top to Aux tank			DAS 9-89 FEB 13 2015		
Supplier									
Training									
Transport				Apply Pro-seal on inner welds.			15/02/09 DAS 36 9-89		
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 127068***127068***

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Friday, December 05, 2014 10:26:00 AM

Item ID: D4464-041

Accept *

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Fuel Tank Assembly

Start Date: 12/5/2014 Start Qty: 1.00

1

Cust Item ID:

Required Date: 12/19/2014 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
123	QC5- Inspect part completeness to step on W/O	0.00	124	Issue DO for NDT Acuron.					
123									
QC	Memo	0.00							
Quality Control	***Pressure Test as per dwg D4464***								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: 12/21/15 Date: 15/03/23Work Order update only ☐

Work Order: <u>127068</u> Part No. <u>D4464041</u> NCR No. <u>15-4700</u>	DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☒</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☒	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☒	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design ☐	15/46	120	1	D4400-045 not aligning with holes & bracket. L.C. tank twisted before welding.	DAS 12 9-89 15/2/6	Acceptable to remove one grammet and enlarge hole as req'd to allow D4400-045 to install. Ensure full clearance around D4400-045. Ensure all chips removed from tank.	DAS 43 9-89 FEB 06 2015	DAS 9 9-89 15-02-10	DAS 9 9-89 15-02-10
Doc/Data ☐									
Equip/Tooling ☐									
Handling/Pre ☐									
Material ☐									
Operator ☐									
Offset/Setup ☒									
Process ☐									
Supplier ☐									
Training ☐									
Transport ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced Set-up ☐ Temperature/Cure ☒ Weld ☐ Wrong Stock Pulled ☐ Other
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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 127068

127068

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Friday, December 05, 2014 10:26:00 AM

Item ID: D4464-041 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Fuel Tank Assembly
 Start Date: 12/5/2014 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 12/19/2014 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170		0.00							
170									
SprayPaint	Memo	0.00							
Spray Painting	***MASK PROIOR PRIME AND PAINT***								
	PRIME TEMPO GREY AS PER DWG AND QSI								
	PRIMER BATCH: <u>m12892</u>								
	PAINT GREY AS PER DWG AND QSI								
	PAINT BATCH: <u>m131537</u>								
180	QC14- Inspect Spray Paint	0.00							
180									
QC	Memo	0.00							
Quality Control									

CK-15-02-10

PTU

15-02-19

DAS
9
9-89

DQA:

Date: 15/03/25



QA Closed:

Date: 15/03/23

WORK ORDER NON-CONFORMANCE / UPDATE

Work Order update only ☐

Work Order: <u>127068</u>	DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS			
Part No. <u>D4464-041</u>		Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
NCR No. <u>15-4701</u>		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
		Thermoforming ☐	Finishing ☒	Rec/Store/Packaging ☐	Other ☐
		Large Fab ☒	Composite ☐	Supplier ☐	

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design		170		found after paint an imperfection in weld		sand down imperfection			
Doc/Data					DAS 12 9-89	alodine affected	PK 15-02-11	DAS 9 9-89	DAS 9 9-89
Equip/Tooling					15/2/18	and touch up with paint		15-02-11	15-02-19
Handling/Pre					15/02/11	per AS2005			
Material				L.C. Process					
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☒ Drill Holes ☒ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge	☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☒ Weld ☐ Wrong Stock Pulled ☐ Other
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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:25%;">Skid-tube ☐</td> <td style="width:25%;">Crosstube ☐</td> <td style="width:25%;">Water Jet ☐</td> <td style="width:25%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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DB 2-12

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Doc/Data ☐									
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Process ☐									
Supplier ☐									
Training ☐									
Transport ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

Friday, December 05, 2014 10:25:58 AM

Page 1

Work Order ID: 127068

127068

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 12/5/2014

Required Date: 12/19/2014

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A 11.11.23 NEW ISSUE DD VERF:EC IPP REV:B
12.03.08 AS PER DWG REV.B DD VERF:EC IPP REV:C 12.04.24
ECN 12-571 DD VERF:EC IPP REV:D 13.10.30 DWG
REV PE1 DD VERF:JLM IPP REV:E 14.06.13 AS PER DWG
REV.E DD VERF:JLM IPP REV:F 14.07.21 AS PER DWG REV.F DD
VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN3H5A *AN3H5A* Bolt		Purchased	No				Each	68.0000	**	5		15/02/12	DAS 36 9-89
				<u>Location</u>				<u>Loc Qty</u>					
				ST350				68					
				125445				18					
				m127044				50		5			DAS 36 9-89
MS20470AD4-6 *MS20470AD4-6* RIVET		Purchased	No				Each	3,186.000	**	8		15/02/12	
				<u>Location</u>				<u>Loc Qty</u>					
				CCK004				1488					
				m128754				1488					
				ST310				1698					
				118927				756					
				m128401				4					
				m129499				938					
D3997-5 *D3997-5* Placard		Manufactured	No			190	Each	53.0000	**	2	2	15/02/12	DAS 36 9-89
				<u>Location</u>				<u>Loc Qty</u>					
				ST076				53					
				72611				53		2			

Picklist Print

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Page 2

Work Order ID: 127068

Parent Item: D4464-041

Parent Item Name: Fuel Tank Assembly

127068

D4464-041

Start Date: 12/5/2014

Required Date: 12/19/2014

Start Qty: 1.00

Required Qty: 1.00

D3997-11

Manufactured No

190

Each

19.0000

1

1

D3997-11

Placard

**

DAS
36
9-89

15/02/12

Location

Loc Qty

Loc Code

ST076

1

99791

1

ST077A

18

106884

12

107679

6

D3997-17

Manufactured No

190

Each

16.0000

1

1

D3997-17

Placard

**

DAS
36
9-89

15/02/12

Location

Loc Qty

Loc Code

ST076

3

100181

3

ST077A

13

106785

4

107632

9

D3997-29

Manufactured No

190

Each

8.0000

1

1

D3997-29

Placard

**

DAS
36
9-89

15/02/12

Location

Loc Qty

Loc Code

ST077A

8

106864

8

D3997-43

Manufactured No

190

Each

19.0000

1

1

D3997-43

Placard

**

DAS
36
9-89

15/02/12

Location

Loc Qty

Loc Code

ST077A

19

106642

10

107558

9

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Shop Packet Print

Page 2

Picklist Print

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Page 3

Work Order ID: 127068

127068

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 12/5/2014

Required Date: 12/19/2014

Start Qty: 1.00

Required Qty: 1.00

D3999-7

Manufactured No

120

Each

14.0000

1

1

D3999-7

Corner

DAS
43
9-89

FEB 04 2015

Location

Loc Qty

Loc Code

WA003

14

108621

10

123147

2

124513

2

1x

D4000-1

Manufactured No

120

Each

11.0000

1

1

D4000-1

Fuel Supply Fitting

DAS
36
9-89

15/02/11

Location

Loc Qty

Loc Code

GA

11

122448

8

123029

3

B128349 (K)

D4000-5

Manufactured No

120

Each

17.0000

1

1

D4000-5

Fuel Tank Vent Fitting

Location

Loc Qty

Loc Code

WA003

17

106917

9

107388

6

123131

2

B106917 → 1x

D4000-9

Manufactured No

120

Each

47.0000

3

3

D4000-9

Grommet

DAS
36
9-89

15/02/11

Location

Loc Qty

Loc Code

WA003

47

106808

33

123024

14

3

Picklist Print

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Page 4

Work Order ID: 127068

127068

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 12/5/2014

Required Date: 12/19/2014

Start Qty: 1.00

Required Qty: 1.00

D4000-045

Manufactured No

120

Each

1.0000

1

1

D4000-045

Fuel Pickup Fitting Assembly

**

FEB 12 2015

DAS
24
9-89

B122673 → 1x

Location

Loc Qty

Loc Code

WA003

1

106873

1

D4008-11

Manufactured No

120

Each

6.0000

1

1

D4008-11

Hinge Half

**

15/02/12

DAS
36
9-89

Location

Loc Qty

Loc Code

GA

6

121802

6

D4008-041

Manufactured No

190

Each

16.0000

1

1

D4008-041

Fuel Filler Splash Guard Assembly

**

15/02/12

DAS
36
9-89

Location

Loc Qty

Loc Code

ST241

10

106901

1

107372

6

116102

3

ST249A

6

123109

4

124463

2

D4023-1

Manufactured No

Each

6.0000

1

D4023-1

Cap And Flange

**

Location

Loc Qty

Loc Code

Mezz

6

64879

5

66862

1

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Shop Packet Print

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Picklist Print

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Page 5

Work Order ID: 127068

127068

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 12/5/2014

Required Date: 12/19/2014

Start Qty: 1.00

Required Qty: 1.00

D4023-3

Manufactured No

190

Each

13.0000

1

1

D4023-3

Cap And Flange

**

JAN 27 2015

DAS
24
9-89

Location

Loc Qty

Loc Code

WA003

13

106700

5

120208

3

122537

5

D4025-5

Manufactured No

190

Each

14.0000

1

1

D4025-5

Fuel Quantity Sender

**

15/02/12

DAS
36
9-89

Location

Loc Qty

Loc Code

ST232B

14

106832

8

107655

4

121582

2

D4057-1

Manufactured No

120

Each

73.0000

3

3

D4057-1

Retaining Ring

**

15/02/12

DAS
36
9-89

Location

Loc Qty

Loc Code

WA003

73

106766

26

107269

47

D4062-041

Manufactured No

190

Each

10.0000

1

1

D4062-041

Tank Support Assembly

**

DAS
24
9-89

FEB 11 2015

Location

Loc Qty

Loc Code

WA003

10

107170

2

122513

4

90627

4

Picklist Print

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Page 6

Work Order ID: 127068

Parent Item: D4464-041

Parent Item Name: Fuel Tank Assembly

127068

D4464-041

Start Date: 12/5/2014

Required Date: 12/19/2014

Start Qty: 1.00

Required Qty: 1.00

D4124-1 Manufactured No

120 Each 38.0000 4 4

D4124-1

Tab

**

Location

Loc Qty

Loc Code

WA003

38

107333

4

116049

13

122641

12

124374

9

D4125-1 Manufactured No

120 Each 3.0000 1 1

D4125-1

Sump

**

JAN 28 2015

DAS
24
9-89

Location

Loc Qty

Loc Code

WA003

3

106764

1

107267

1

110961

1

D4125-3 Manufactured No

120 Each 16.0000 1 1

D4125-3

End

**

JAN 28 2015

DAS
24
9-89

Location

Loc Qty

Loc Code

WA003

16

106826

1

111009

2

114307

3

122630

10

D4404-5 Manufactured No

120 Each 8.0000 2 2

D4404-5

Cushion, Fwd

**

15/02/12

DAS
36
9-89

Location

Loc Qty

Loc Code

ST517

8

121948

8

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Shop Packet Print

Page 6

Picklist Print

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Page 7

Work Order ID: 127068

127068

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 12/5/2014

Required Date: 12/19/2014

Start Qty: 1.00

Required Qty: 1.00

D4462-1

Manufactured No

112

Each

6.0000

1

1

D4462-1

Baffle

**

Location

Loc Qty

Loc Code

WA003

6

121628

6

D4462-3

Manufactured No

112

Each

7.0000

1

1

D4462-3

Baffle

**

Location

Loc Qty

Loc Code

WA003

7

121666

7

D4463-041

Manufactured No

120

Each

7.0000

1

1

D4463-041

Tank Top Assembly

**

Location

Loc Qty

Loc Code

WA003

7

120963

6

124144

1

D4463-3

Manufactured No

120

Each

3.0000

1

1

D4463-3

Tank Aft End

**

Location

Loc Qty

Loc Code

WA003

3

123531

3

DAS
36
9-89

15/01/29
B128561 (1x)

DAS
36
9-89

10/01/29
B128562 (1x)

DAS
43
9-89

FEB 04 2015

B120963 → 11

DAS
43
9-89

FEB 04 2015

B122835 → 1

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

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Page 8

Work Order ID: 127068

127068

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 12/5/2014

Required Date: 12/19/2014

Start Qty: 1.00

Required Qty: 1.00

D4463-5 Manufactured No

120 Each 29.0000 1 1

D4463-5

Tank Upper Cut Out

**

DAS

43

9-89

FEB 04 2015

B123295 → 1x

Location

Loc Qty

Loc Code

WA003

29

106751

15

120923

2

121024

6

123295

6

D4463-7 Manufactured No

120 Each 7.0000 1 1

D4463-7

Tank Fwd End

**

DAS

43

9-89

FEB 04 2015

B121172 → 1x

Location

Loc Qty

Loc Code

WA003

7

121172

7

D4463-9 Manufactured No

112 Each 9.0000 1 1

D4463-9

Tank Back

**

DAS

36

9-89

15/01/2015

Location

Loc Qty

Loc Code

WA003

9

121175

9

D4463-11 Manufactured No

112 Each 7.0000 1 1

D4463-11

Tank Front

**

DAS

24

9-89

68-6

24

DAS

JAN 27 2015

Location

Loc Qty

Loc Code

WA003

7

121675

7

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
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Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

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Work Order ID: 127068

Parent Item: D4464-041

Parent Item Name: Fuel Tank Assembly

127068

D4464-041

Start Date: 12/5/2014

Start Qty: 1.00

Require

Require

D4463-13

Manufactured No

190

Each

7.0000

1

1

D4463-13

Tank Bottom

Location

Loc Qty

Loc Code

WA003

7

121165

4

123120

3

D4577-041

Manufactured No

190

Each

13.0000

1

1

D4577-041

Fwd Access Panel Assembly

Location

Loc Qty

Loc Code

ST234

13

106703

13

D4577-1

Manufactured No

190

Each

11.0000

1

1

D4577-1

Rear Access Panel

Location

Loc Qty

Loc Code

ST233A

11

106923

4

121178

2

124494

5

D4577-3

Manufactured No

190

Each

7.0000

1

1

D4577-3

Middle Access Panel

Location

Loc Qty

Loc Code

ST233A

7

106697

3

120991

4

**

FEB 04 2015

**

**

**

DAS
43
33

DAS
36
9-89

DAS
36
39

DAS
36
89

Friday, December 05, 2014 10:25:59 AM

Shop Packet Print

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

Friday, December 05, 2014 10:26:00 AM

Page 10

Work Order ID: 127068

127068

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 12/5/2014

Required Date: 12/19/2014

Start Qty: 1.00

Required Qty: 1.00

D4968-1 Manufactured No

190 Each

6.0000

1 1

DAS
36
9-89

D4968-1

Side Cushion

Location

Loc Qty

Loc Code

ST400

6

120927

6

Each

6.0000

1

DAS
36
9-89

D4975-1

Manufactured No

D4975-1

Bracket

Location

Loc Qty

Loc Code

st128

6

120928

6

Each

260.0000

24

DAS
36
9-89

AN3-5A

Purchased No

AN3-5A

Bolt

Location

Loc Qty

Loc Code

ST350

260

117423

6

124561

2

m126559

92

m129507

38

m130325

122

AN3-6A

Purchased No

AN3-6A

Bolt

190 Each

199.0000

4

4

Location

Loc Qty

Loc Code

ST349

199

M127044

4

M128739

95

M130466

100

Friday, December 05, 2014 10:26:00 AM

Shop Packet Print

Page 10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

Friday, December 05, 2014 10:26:00 AM

Work Order ID: 127068

127068

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 12/5/2014

Required Date: 12/19/2014

Start Qty: 1.00

Required Qty: 1.00

MS20426AD4-4 Purchased No

Each 2,219.000 4

MS20426AD4-4

Rivet

**

15/02/12 DAS 36 9-89

Location

Loc Qty

Loc Code

CCK004

2165

125445

2165

ST312

54

129090

54

Each 3,090.000 165

MS20470AD4-4 Purchased No

MS20470AD4-4

Rivet, Universal Head

**

15/01/29 DAS 36 9-89

Location

Loc Qty

Loc Code

ST273A

2618

M130224

2618

ST310

472

118614

27

121652

180

M129499

265

190 Each 1,180.000 4 4

MS21042L3 Purchased No

MS21042L3

Nut

**

Location

Loc Qty

Loc Code

FP001

486

M130922

486

ST305

694

123900

20

M127410

11

M127831

41

M128401

34

M130799

588

N/A

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design ☐									
Doc/Data ☐									
Equip/Tooling ☐									
Handling/Pre ☐									
Material ☐									
Operator ☐									
Offset/Setup ☐									
Process ☐									
Supplier ☐									
Training ☐									
Transport ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Picklist Print

Page 12

Friday, December 05, 2014 10:26:00 AM

Work Order ID: 127068

127068

Parent Item: D4464-041

D4464-041

Parent Item Name: Fuel Tank Assembly

Start Date: 12/5/2014

Required Date: 12/19/2014

Start Qty: 1.00

Required Qty: 1.00

NAS1149D0332J

Purchased

No

190

Each

1,827.000

5

5

NAS1149D0332.J

Washer

**

15/02/12

DAS
36
9-89

Location

Loc Qty

Loc Code

CA

33

m129682

33

ST260a

1664

m130325

1664

ST269

130

m128606

12

m128612

93

m129624

25

NAS1149D0363J

Purchased

No

190

Each

1,789.000

32

32

NAS1149D0363.J

Washer

**

15/02/09

DAS
36
9-89

Location

Loc Qty

Loc Code

GA

7

124392

7

ST260a

600

m130799

600

ST269

1182

m123441

5

m126319

245

m128429

897

m130358

35

32

* NAS1149D0316J

M 127956

1X

15/02/12

DAS
36
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Large Fab ☐	Composite ☐	Supplier ☐																

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Design ☐									
Doc/Data ☐									
Equip/Tooling ☐									
Handling/Pre ☐									
Material ☐									
Operator ☐									
Offset/Setup ☐									
Process ☐									
Supplier ☐									
Training ☐									
Transport ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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ITEM	QTY -041	PART NUMBER	DESCRIPTION
	X	D4464-041	FUEL TANK ASSEMBLY
1	2	D3997-5	PLACARD (AUX FUEL DRAIN)
2	1	D3997-11	PLACARD (LOADING)
3	1	D3997-17	PLACARD (STOWAGE)
4	1	D3997-29	PLACARD (WARNING)
5	1	D3997-43	PLACARD (EARTH)
6	1	D3999-7	CORNER
7	1	D4000-1	FITTING
8	1	D4000-5	FUEL TANK VENT FITTING
9	3	D4000-9	GROMMET
10	1	D4000-045	FUEL PICK UP AND STRAINER ASSEMBLY
11	1	D4008-11	TANK HINGE HALF
12	1	D4008-041	FUEL FILLER SPLASH GUARD ASSEMBLY
13	1	D4023-3	FUEL CAP AND FLANGE
14	1	D4025-5	FUEL SENDER
15	3	D4057-1	RETAINER
16	1	D4062-041	TANK SUPPORT
17	4	D4124-1	TAB
18	1	D4125-1	FWD SEDIMENT BOWL
19	1	D4125-3	AFT SEDIMENT BOWL
20	2	D4404-5	CUSHION, FWD
21	1	D4462-1	BAFFLE
22	1	D4462-3	BAFFLE
23	1	D4463-041	TOP TANK ASSEMBLY
24	1	D4463-3	TANK AFT END
25	1	D4463-5	TANK UPPER CUT OUT
26	1	D4463-7	TANK FORWARD END
27	1	D4463-9	TANK BACK
28	1	D4463-11	TANK FRONT
29	1	D4463-13	TANK BOTTOM
30	1	D4577-041	FWD ACCESS PANEL ASSEMBLY
31	1	D4577-1	REAR ACCESS PANEL
32	1	D4577-3	MIDDLE ACCESS PANEL
33	1	D4968-1	CUSHION, SIDE
34	1	D4975-1	ANGLE BRACKET
35	24	AN3-5A	BOLT
36	5	AN3H5A	BOLT
37	4	AN3-6A	BOLT
38	4	MS20426AD4-4	RIVET, CSK
39	165	MS20470AD4-4	RIVET, PANHEAD
40	8	MS20470AD4-6	RIVET, PANHEAD
41	4	MS21042L3	NUT
42	5	NAS1149D0332J	WASHER
43	32	NAS1149D0363J	WASHER

RELEASED

2015 JAN 15

REC'D 14-646

G	FINISH "FLAT GREY" WAS "GREY" (SHT 2); PICTORIAL UPDATE FOR D4000-1 & D4462-1	AP	14.12.05
F	AN3-5A WAS AN3C4A QTY. 24 (ZN D6-2) AN3H5A WAS AN3-5A QTY. 5 (ZN D7-2) MS20470AD4-6 WAS MS20426AD4-6 QTY. 8 (ZN B5-2) D4000-1 IS NO LONGER INSTALLED WITH COUNTERSUNK RIVETS UPDATE NOTE 10 ON SHEET 3	ML	14.06.27
E	UPDATED -041 WITH RE-DESIGNED D4463-3/-9/-11 AND D4462-1/-3. D4968-1 REPLACES D4404-5 ON TANK SIDE (ZN C3-2) REF NCR 13-3100 AN3-6A REPLACES MS35206-266 (ZN B8-2) NAS1149D0332J REPLACES 5 X NAS1149D0363J (ZN D7-2) REF PAR 12-217 D4975-1 REPLACES D3999-9 (ZN C3-2) REMOVED TAB D3999-11 AND MOVED D3997-43 PLACARD (ZN B6-5) UPDATED BILL OF MATERIALS REVISED ALL NOTES REMOVED SHEET 5	ML	14.05.13
D	ADDED NOTE RE HAND FORMING D4124-1, ZN A8-4.	DC	12.05.02
C	UPDATED -041 WITH RE-DESIGNED D4463-11/-13 REV. C PARTS, ZN B6-2. UPDATED -041 WITH RE-DESIGNED D4577-041/-3/-5 PARTS, ZN C6-2.	DC	12.03.27
B	UPDATED -041 WITH RE-DESIGNED PARTS. REMOVED D4463-13. ADDED D4577-041/-1/-5 ACCESS PANELS, ZN C6-2.	DC	11.12.14
A	NEW ISSUE. REF PAR11-117 & CAR 11-54.	DC	11.10.19
REV.	DESCRIPTION	BY	DATE
DESIGN	ML	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AP		
CHECKED	DB	DRAWING NO.	REV. G
MFG. APPR.	JLM	D4464	SHEET 1 OF 4
APPROVED	MP	TITLE	SCALE
DE APPR.	DE	TANK ASSEMBLY	NTS
DATE	14.12.05	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

APPROVED

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

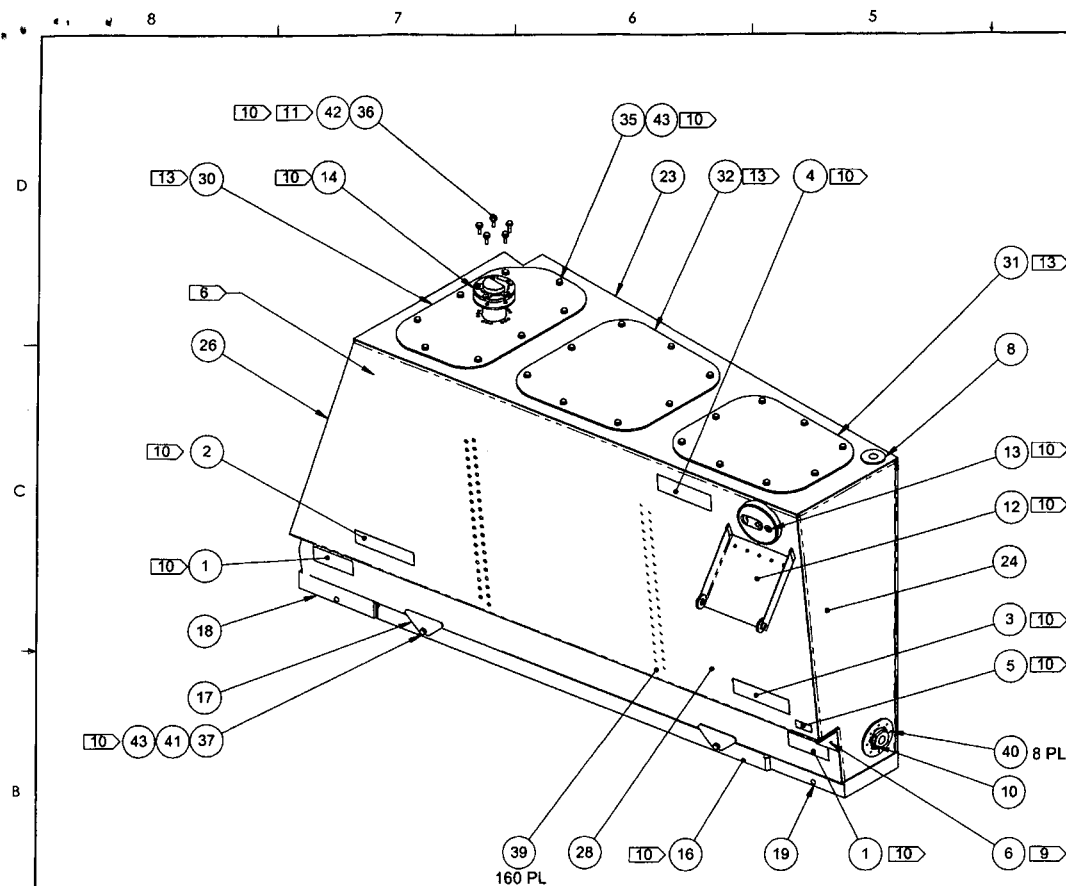
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

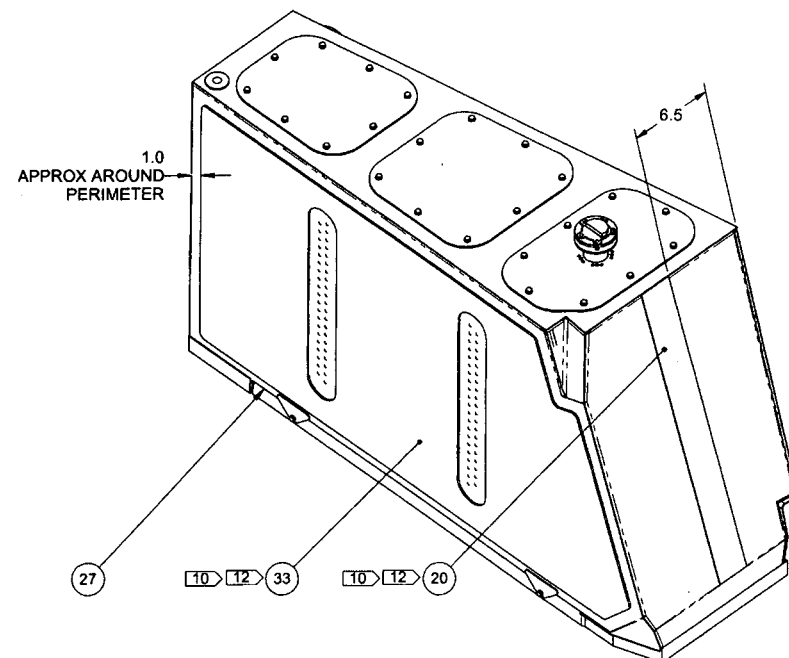
Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge	☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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D4464-041 FUEL TANK ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME TEMPO GREY (4.2.1.3.2) PER DART QSI 005 4.2.1
PAINT FLAT GREY (4.2.2.3) PER DART QSI 005 4.2.2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D350-794-141" USING D2729-1 RED DECAL
- 7) WEIGHT: 39.09 lbs
- 8) CAP ALL TANK ACCESS POINTS AND PRESSURE TEST TANK PER QSI 038 6.3. VERIFY NO LEAKS
- 9) MASK PRIOR TO FINISH
- 10) INSTALL AFTER FINISH
- 11) LOCKWIRE BOLTS AFTER INSTALLATION PER AC 43.13 OR MS33540
- 12) INSTALL CUSHION USING CONTACT CEMENT. TRIM TO FIT IF REQUIRED
- 13) INSTALL D4577-041/-1/-3 ACCESS PANELS WET WITH PROSEAL P/S 890B.



RELEASED

2015 JAN 15

APPROVED

DESIGN	ML	DART AEROSPACE LTD	
DRAWN	AP	HAWKESBURY, ONTARIO, CANADA	
CHECKED	DB	DRAWING NO.	REV. G
MFG. APPR.	JLM	D4464	SHEET 2 OF 4
APPROVED	MP	TITLE	SCALE
DE APPR.	DS	TANK ASSEMBLY	NTS
DATE	14.12.05	COPYRIGHT © 2011 BY DART AEROSPACE LTD	
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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

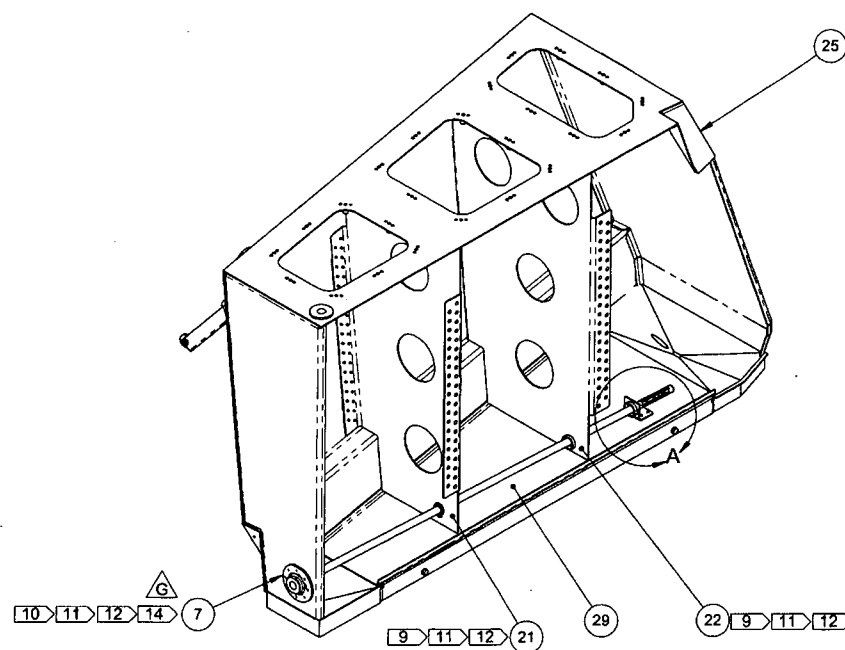
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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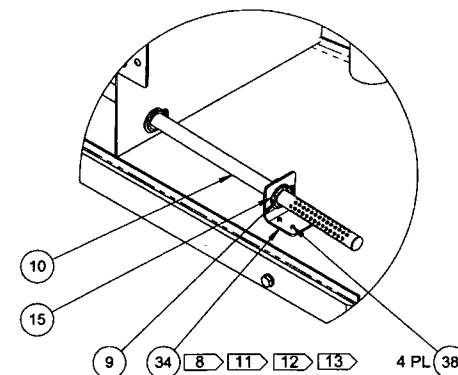


D4464-041 FUEL TANK ASSEMBLY

D4463-9 TANK BACK REMOVED
TO SHOW INTERIOR DETAIL

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A
- 8) COAT FAYING SURFACES OF D4975-1 ANGLE BRACKET AND D4463-13 TANK BOTTOM WITH PROSEAL P/S 890B AND WET INSTALL MS20426AD4-4 RIVETS
- 9) COAT FAYING SURFACES OF D4462-1/-3 BAFFLES AND D4463-9/-11 TANK FRONT/BACK WITH PROSEAL P/S 890B AND WET INSTALL MS20470AD4-4 RIVETS
- 10) COAT FAYING SURFACES OF D4000-1 FUEL SUPPLY FITTING AND D4463-3 TANK AFT END WITH PROSEAL P/S 890B AND WET INSTALL MS20470AD4-6 RIVETS
- 11) FILLET SEAL THE INTERIOR OF THE TANK AROUND THE EDGE OF D4975-1 ANGLE BRACKET, D4462-1/-3 BAFFLES AND D4000-1 FUEL SUPPLY FITTING WITH PROSEAL P/S 890B
- 12) DOME SEAL ALL BUCKED ENDS OF RIVETS WITH PROSEAL P/S 890B
- 13) TRANSFER DRILL $\phi 0.128$ HOLES FROM D4975-1 ANGLE BRACKET INTO D4463-13 TANK BOTTOM AND COUNTERSINK HOLES $\phi 0.225 \times 100^\circ$ FROM THE OUTSIDE OF THE TANK
- 14) INSTALL D4000-1 FITTING WITH FLAT FACING UPWARDS



DETAIL A
ROTATED FOR CLARITY
SCALE 2X

RELEASED

2015 JAN 15

APPROVED

DESIGN	ML	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AP		
CHECKED	DB	DRAWING NO. D4464	REV. G
MFG. APPR.	JLM	SHEET 3 OF 4	
APPROVED	MP	TITLE	SCALE
DE APPR.	DS	TANK ASSEMBLY	NTS
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DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

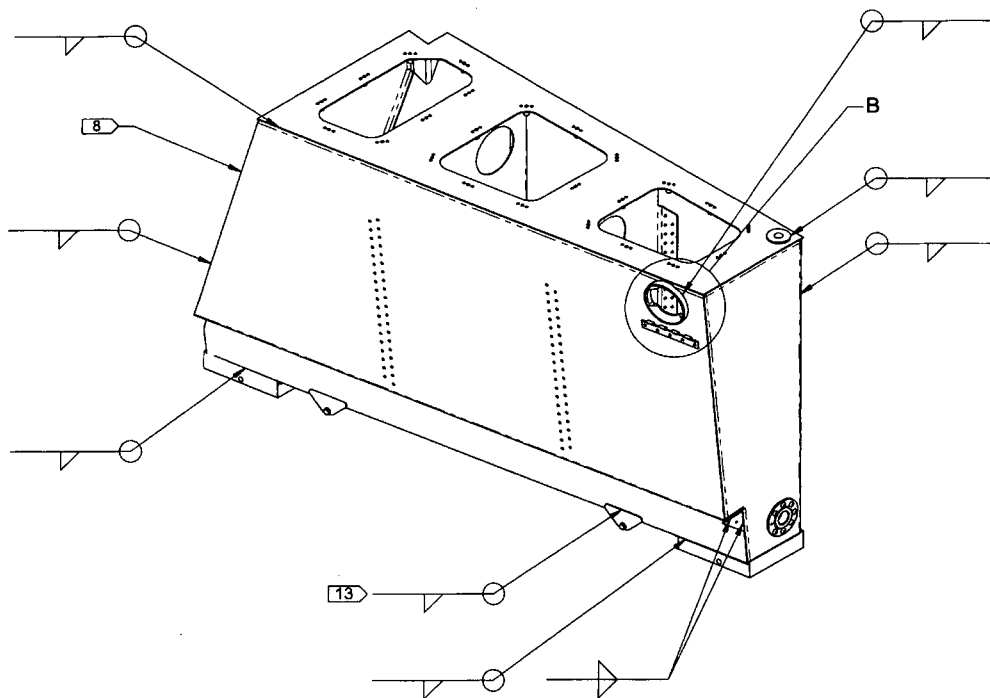
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

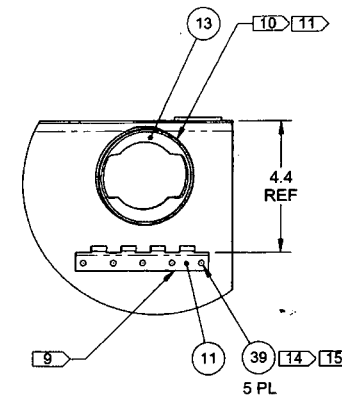
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design ☐									
Doc/Data ☐									
Equip/Tooling ☐									
Handling/Pre ☐									
Material ☐									
Operator ☐									
Offset/Setup ☐									
Process ☐									
Supplier ☐									
Training ☐									
Transport ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
		☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge
		☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other



D4464-041 FUEL TANK ASSEMBLY
WELDING AND RIVETING DETAIL



DETAIL B
ROTATED FOR CLARITY
SCALE 2X

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A
- 8) TRIM FLANGES AS REQUIRED TO FIT ASSEMBLY
- 9) CENTER HINGE BELOW FUEL CAP FLANGE
- 10) POSITION FUEL CAP FLANGE AS SHOWN, ELONGATED HOLE APPROXIMATELY HORIZONTAL
- 11) POSITION FUEL CAP FLANGE SO THAT INNER FACE IS FLUSH WITH INSIDE OF TANK
- 12) WELD PER DART QSI 004
- 13) USE THE D4062-041 TANK SUPPORT ASSEMBLY TO POSITION THE D4124-1 TABS BEFORE WELDING
D4124-1 TABS MAY BE HAND FORMED AS REQUIRED TO FIT D4062-041 ASSEMBLY BEFORE WELDING
- 14) COAT FAYING SURFACES OF D4008-11 TANK HINGE HALF AND D4463-11 TANK FRONT WITH PROSEAL P/S 890B
AND WET INSTALL MS20470AD4-4 RIVETS
- 15) DOME SEAL ALL BUCKED ENDS OF RIVETS WITH PROSEAL P/S 890B

RELEASED

2015 JAN 15 *ap*

APPROVED

DESIGN	ML	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AP		
CHECKED	DB	DRAWING NO.	REV. G
MFG. APPR.	JLM	D4464	SHEET 4 OF 4
APPROVED	MP	TITLE	SCALE
DE APPR.	DS	TANK ASSEMBLY	NTS
DATE	14.12.05	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence
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☐ Outside Dimensions ☐ Over/Under tolerance ☒ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge	☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other	
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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO27380**

Purchase Order Date 2/9/2015

PO Print Date 2/9/2015

Page Number 1 of 3

Order From :

VC-SKY001

Ship To : DART AEROSPACE LTD

SKYSERVICE
6120 MIDFIELD ROAD
MISSISSAUGA, ONTARIO L5P 1B1
CANADA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 905-678-5636

Ship To Contact

Ship To Phone

Ship Via: Delivered

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	71401-45	procurement quality clauses	2/9/2015 No 2/9/2015		1.00	\$0.00	\$0.00
	A005 RIGHT OF ENTRY A016 PERSONNEL QUALIFICATION A020 NON - DESTRUCTIVE TEST/INSPECTION IDENTIFICATION A041 QUALITY MANAGEMENT SYSTEM A042 DART NOTIFICATION BY SUPPLIER A043 RETENTION OF QUALITY DOCUMENTS						
						Line Total:	\$0.00
2	127068	D4464-041 FUEL TANK	2/9/2015 Yes 2/9/2015		1.00	\$155.00	\$155.00
	LIQUID PENETRANT INSPECTION AS PER QSI 038 OR LPI AS PER ASTM 1417 LEVEL 2						
						Line Total:	\$155.00

SP/KS-029

Note:

2/9/2015

**skyservice****Work Order Traveler**

Sky Service F.B.O. Inc.

DOT APP 53-89 / EASA 145.7142 / BDA AMO 385

WO #: MWO23577	Customer: Dart Aerospace Ltd.	Dept: NDT YUL	Reference: PO27380
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

Work Required:

CARRY OUT NDT ON 4 AFT CROSSTUBES-HIGH AND 1 FUEL TANK ASSY.

4 AFT CROSSTUBES-HIGH ID# D412-664-203, WORK ORDERS ID# 128024, 128041, 128042, 128043

1 FUEL TANK ASSY ID# D4464-041, WORK ORDER ID# 127068

Action Taken:						Date:	Initial/Stamp:
LIQUID PENETRANT C/O ON ITEMS LISTED ABOVE AS PER ASTM E-1417M-13						FEB 09 2015	
NO CRACK FOUND							
ARDROX 970P25E BATCH# 2312131, M-20141							
Description	Location	P/N	Qty	Batch	S/N Off	S/N On	

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature:	ACA/SCA Stamp	Date:
Name: RAFIK MELIKIAN		FEB 09 2015